

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Andrew McIntosh Soutar, et al.
Serial No.: 10/099,936
Filed: March 13, 2002
Confirmation No.: 3281
For: SOLDERABILITY ENHANCEMENT BY SILVER IMMERSION PRINTED
CIRCUIT BOARD MANUFACTURE
Art Unit: 1792
Examiner: Brian K. Talbot

July 21, 2011

Renewed Suggestion of Interference under
41 C.F.R. §202(a) After Remand
from the Board of Patent Appeals and
Interferences in Patent Interference 105,738

SIR:

In Interference No. 105,738, the Board of Patent Appeals and Interferences awarded priority to Applicants (claims 32, 33, 35 and 36) over MacDermid US patents 6,444,109 and 6,905,587.

Concurrently filed with the instant suggestion of interference is Amendment E, which adds new claims 41-64. New claims 41-52 are directed to a printed circuit board as defined by its process of preparation in which silver immersion plating is followed by treatment with a solution comprising a fatty amine, fatty amide, quaternary ammonium salt, or ethoxylated or propoxylated versions of these. New claims 53-64 are directed to a printed circuit board defined by its process of preparation in which silver immersion plating is conducted using a plating solution that contains a fatty amine, fatty amide, quaternary ammonium salt, or ethoxylated or propoxylated versions of these.

Applicants suggest and request that: (i) an interference be declared between the instant application assigned to Enthone Inc. (claims 18, 19, 21, 22, 24 and 25) and three US patents assigned to MacDermid, i.e., U.S. Patent Nos. 6,200,451 (claims 1-12), 6,544,397 (claims 1-11) and 7,267,259 (claims 1-7); and (ii) Enthone be declared the Senior Party.

Among new product-by-process claims 41-52, the process steps of claims 41 and 47 correspond to process claims 34 and 35, respectively, and among new product-by-process claims 53-64, the process steps of claims 53 and 59 correspond to process claims 21 and 22, respectively. Claims 41-52 also correspond to claims 1-12 of Ser. No. 13/093,631, while claims 53-64 also correspond to claims 7-18 that are concurrently being submitted in continuation application Ser. No. 10/562,882 (filed July 20, 2011) and to previously pending claims 13-24 of U.S. Ser. No. 13/092,631, which are being concurrently canceled.

Applicants' remarks begin at p. 3 of the Document.

Conclusions begin at p. 20.

Remarks

I. SUGGESTION OF INTERFERENCE

A. Background Information

Applicants previously filed a suggestion of interference, requesting that the Board of Patent Appeals and Interferences declare an interference between the instant Enthone application and the following patents assigned to MacDermid: U.S. Patent Nos. 6,200,451, 6,444,109, 6,544,397, 6,905,587, and 7,267,259. On March 1, 2010, the Board declared Patent Interference No. 105,738 between claims 32, 33, 35 and 36 of the instant application and MacDermid's '109 patent.

On April 22, 2010, Enthone filed its Motion List, indicating that Enthone wished to add MacDermid's '451, '397, '587, and '259 patents to the interference. At an April 26, 2010 conference call with the Board to discuss the parties' Motions List, the Board suggested that Enthone file a motion to add MacDermid's '587 patent to the interference and a motion to declare an additional interference between Enthone's '936 application and MacDermid's '451, '397, and '259 patents. On June 7, 2010, following the Board's suggestion, Enthone filed these two motions as Substantive Motion 2 and Miscellaneous Motion 1, respectively. On March 29, 2011, the Board granted Enthone's Substantive Motion 2, and dismissed Enthone's Miscellaneous Motion 1 without prejudice, advising Enthone to renew its suggestion of interference before the examiner.

The claims of the MacDermid '451, '397 and '259 patents are very closely related to the claims of the '109

and '587 patents over which the Board of Patent Appeals and Interferences has now awarded priority to Applicants. The MacDermid '451, '397 and '259 patents derive from the same priority applications on which the '109 and '587 were based, and all claims of the instant continuation application are based on the same priority applications on which Applicants were awarded priority over the '109 and '587 patents.

B. Parallel Continuation Application

In order to avoid delaying the grant of claims 32, 33, 35 and 36 of this application for which Enthone was awarded priority over the MacDermid '109 and '587 patents by the Board, Applicants have also filed a continuation application (Ser. No. 10/562,882) as an alternative vehicle through which to further pursue their request for declaration of an interference with the '451, '397 and '259 patents. However, claims 18, 19, 21, 22, 24 and 25 remain pending herein, and new claims 53-64 are added, against the contingency that prosecution to allowance, adjudication of priority and grant may yet proceed more expeditiously in this case.

C. Double Patenting

Double patenting issues will be avoided by canceling the claims from either this case or the 10/562,882 continuation whenever the other case is in condition for grant except for double patenting.

D. Action Filed by MacDermid Under 35 U.S.C. §146

On May 2, 2011, MacDermid, the losing party in the interference, challenged the decision of the Board of Patent Appeals and Interferences by filing an action under 35 U.S.C. §146 in the United States District Court for the

District of Connecticut. *See MacDermid, Inc. v. Enthone Inc.*, Case No. 3:11-cv-00716-CSH (D. Conn.). Applicants respectfully submit that the decision of the Board is supported by the evidence, and that the evidence in the §146 action will confirm that the Board's decision was correct.

E. Enthone Counterclaim

In response to the §146 action filed by MacDermid, Enthone has filed an answer pleading that the decision of the Board in the '738 Interference awarding priority to Applicants' claims 32, 22, 25 and 36 vs. the MacDermid '109 and '587 patents should be upheld, and a counterclaim asking that the court find that Applicants have complied with 41 C.F.R. §202(a)(4) and (d) in their motion to have a further interference declared between claims 18, 19, 21, 22, 24 and 25 of this application and the MacDermid '451, '397, and '259 patents, patents, and remanding to the Board for a determination of priority.

Applicants respectfully submit that the pending counterclaim in the District of Connecticut and the instant suggestion of interference, which is filed in compliance with the Board's decision on Motion 1, are not mutually exclusive or inconsistent.

F. Identification of the Patent with which Applicants Seek an Interference

Applicants request that an interference be declared with the following patents:

1. U.S. Patent No. 6,200,451
2. U.S. Patent No. 6,544,397, and
3. U.S. Patent No. 7,267,259.

These patent are all owned by MacDermid, Incorporated.

G. Proposed Count

Applicants propose the following Count, which corresponds to claim 1 of the '451 patent:

Count 1

A process for improving the solderability of a metal surface, said process comprising treating the metal surface with an immersion silver plating solution, said solution comprising:

- a). a soluble source of silver ions;
- b). an acid;
- c). an additive selected from the group consisting of fatty amines, fatty amides, quaternary salts, amphoteric salts, resinous amines, resinous amides, fatty acids, resinous acids, ethoxylated versions of any of the foregoing, propoxylated versions of any of the foregoing and mixtures of any of the foregoing.

H. Claims Corresponding to the Proposed Count

For purposes of this interference, the claims corresponding to Count 1 are as follows:

US Pat. 6,200,451: Claims 1-12

US Pat. 6,544,397: Claims 1-11

US Pat. 7,267,259: Claims 1-7

Ser. No. 10/099,936: Claims 18, 19, 21, 22, 24 and 25.

Claims 18, 19, 21, 22, 24 and 25 are identical to claims 1-6 of Ser. No. 10/562,882.

I. Applicants' Product-By Process Claims

Claims 41-52 of this case 10/099,936 are product-by process claims in which the process comprises treating the silver immersion plated substrate with a solution comprising and additive selected from the group consisting of fatty amines, fatty amides, quaternary ammonium salts and ethoxylated or propoxylated versions of these. It is

respectfully submitted that priority to the subject matter of claims 41-52 has been established by the decision of the Board of Patent Appeals and Interferences in Interference No. 105,738.

Claims 53-64 are product-by-process claims among which claims 53 and 59 correspond, in their method limitations, to claims 21 and 22 of the instant application. These claims differ from the count in the requirement for "[a]printed circuit board having metal pads, metal through holes or combination thereof, the metal pads, metal through-holes or combination thereof being formed of copper and comprising an immersion silver plate thereon."

Applicants' leave to the Examiner's discretion whether some or all of claims 53-64 correspond to the count.

If the Examiner determines that any of claims 53-64 are patentably distinct from the count, Applicants will pursue these claims either through Ser. No. 10/562,882 or through a further continuation application to avoid delay resulting from the proposed interference proceedings.

1. Correspondence of MacDermid's Claims to the Count

a. U.S. Pat. 6,200,451

Count 1 anticipates claim 1 of U.S. Pat. 6,200,451. Therefore, claim 1 corresponds to Count 1. 37 CFR 41.207(b)(2). Claims 2-8 depend from claim 1, and also correspond to Count 1.

Claim 2 requires the additional limitation that "the silver plating solution also comprises material selected from the group consisting of imidazoles, benzimidazoles, imidazole derivatives and benzimidazole derivatives." This

additional limitation does not render claim 2 patentable over the proposed Count. Inclusion of imidazoles and imidazole derivatives in immersion silver plating solutions was well known in the art before the earliest effective filing date of U.S. Pat. 6,200,451. For example, U.S. Pat. 5,733,599 (prior art to the '451 patent under 35 U.S.C. 102(a) and (e)), entitled "Method for Enhancing the Solderability of a Surface," discloses including imidazoles and imidazole derivatives in immersion silver plating solutions at column 2, line 55; column 3, lines 1-38; and column 5, lines 16-21. Published European Application EP0797380A1 corresponds to U.S. Pat. 5,733,599 and was published on September 24, 1997. It is prior art to the '451 patent under 35 U.S.C. 102(b) and discloses including imidazoles and imidazole derivatives in immersion silver plating solutions at page 3, lines 6 and 15-43; page 4, line 53 through page 5, line 10. Therefore, claim 2 corresponds to Count 1. 37 CFR 41.207(b)(2).

Claim 3 depends from claim 1 and adds the limitation that "the silver plating solution also comprises an oxidant." This additional limitation does not render claim 3 patentable over the proposed Count. Inclusion of an oxidant in silver plating solutions was well known in the art before the earliest effective filing date of U.S. Pat. 6,200,451. For example, U.S. Pat. 5,733,599 discloses including oxidants in immersion silver plating solutions at column 2, line 56; column 3, lines 39-46; and column 5, lines 16-21. Published European Application EP0797380A1 discloses including oxidants in immersion silver plating solutions at page 3, lines 7 and 44-47; page 4, line 53

through page 5, line 10. Therefore, claim 3 corresponds to the Count. 37 CFR 41.207(b)(2).

Claim 4 further requires that the metal surface being treated with the silver plating solution be copper. Copper is well known in the art to provide a good substrate for silver plating solutions. See, for example, Geld, Metal Finishing (1960) August, p 53 (describing a silver coating process involving an initial bright dip of the brass or copper substrate, followed by a silver plating step); see also EP0797380A1 at page 2, lines 41-42 ("The current invention proposes the use of an immersion silver coating as an improved solderability preservative for various surfaces, *particularly copper surfaces*"). Therefore, claim 4 corresponds to the Count. 37 CFR 41.207(b)(2).

Claim 5 is directed to selected additives falling within the broader class of additives recited the Count. The particular additives are obvious in view of the broader classes. For example, tallowamine and cocoamine are commonly recited in literature describing fatty amines. See, for example, U.S. Pat. 4,542,068 (col. 2, line 52-66), and U.S. Pat. 4,339,343, (col. 4, lines 10-26). Stearic acid, oleic acid, and palmitic acid are commonly listed in literature reciting fatty acids. See, for example, Solomons, Fundamentals of Organic Chemistry, p. 895 (1987), which lists palmitic, stearic, and oleic acids in its list of seven "Common fatty acids." Therefore, claim 5 corresponds to the Count. 37 CFR 41.207(b)(2).

Claim 6 combines the limitations of claims 2 and 4. Claim 7 combines the limitations of claims 2, 3, and 4. Claim 8 combines the limitations of claims 2, 3, 4, and 5. None of these combinations are patentable over the Count in

view of the references discussed above. Therefore, claims 6-8 correspond to Count 1. 37 CFR 41.207(b) (2).

Claim 9 is a composition claim which defines the silver immersion plating bath in the same terms as the Count, is therefore anticipated by Count 1, and corresponds to the Count. Claim 10 is a composition claim which depends from claim 9 and adds the requirement for an imidazole or benzimidazole. It therefore corresponds to the Count on the same basis as claim 2. Composition claim 11 depends from claim 9 and further requires an oxidant. It thus corresponds to the Count on the same basis as claim 3. Composition claim 12 depends from claim 9 and specifies the same Markush group of additives as claim 5. Claim 12 therefore corresponds to the Count on the same basis.

b. U.S. Pat. 6,544,397

Claims 1-8 of the '397 patent are identical to claims 1-8 of the '451 patent except for the added limitation that the additive be present in the silver plating solution at a concentration "from about .1 g/l to about 15 g/l." For the same reasons discussed above for claims 1-8 of the '451 patent, claims 1-8 of the '397 correspond to the proposed Count. The added concentration limitation does not change this conclusion. In fact, during prosecution of the '397 patent, the examiner rejected the claims for obviousness-type double patenting as being unpatentable over the corresponding claims of the '451 patent. Therefore, claims 1-8 correspond to the Count. 37 CFR 41.207(b) (2).

Claim 9 is a composition claim which calls for the same Markush group of additives as process claim 5, and therefore corresponds to the Count on the same basis as claim 5. Composition claim 10 depends from claim 9 and

combines the additives of claim 5 with an imidazole or benzimidazole. It therefore corresponds to the Count for the reasons explained with regard to process claims 2 and 5. Claim 11 is a composition claim that depends from claim 9 and adds an oxidant. It would have been obvious in light of Count 1 for the reasons explained with respect to claims 2 and 3.

c. U.S. Pat. 7,267,259

Claim 1 of the '259 patent corresponds to the proposed Count as well. Claim 1 differs from the Count in that it is limited to treating copper surfaces. This is not a significant difference. As discussed above, copper is well known in the art to provide a good substrate for silver plating solutions.

Claim 1 also requires that the silver ion concentration in the plating solution fall within the range "0.1 to 25 g/l." This limitation does not render the claimed subject matter patentably distinct from the Count, which does not specify a silver ion concentration. For example, U.S. Pat. 5,733,599 discloses immersion silver plating solution having a concentration of silver between "0.1 to 25 grams per liter" at column 2, lines 59-60. See also EP0797380A1 at page 3, lines 10-11.

Claim 1 also requires that the immersion silver plating solution contain an aromatic nitro compound. Including an aromatic nitro compound in silver plating solutions was well known in the art before the earliest effective filing date of U.S. Pat. 7,267,259. For example, U.S. Pat. 5,733,599 discloses including aromatic nitro compounds in immersion silver plating solutions at column 3, lines 41-44 and column 5, lines 16-21. Published

European Application EP0797380A1 discloses including aromatic nitro compounds in immersion silver plating solutions at page 3, lines 45-46; page 4, line 53 through page 5, line 10. Therefore, claim 1 corresponds to the Count. 37 CFR 41.207(b)(2).

Claims 2-4 depend from claim 1 and also correspond to the Count. Claim 2 adds the limitation that "the aromatic nitro compound comprises an aromatic dinitro compound." Claim 3 requires that "the aromatic nitro compound is 3,5 dinitrohydroxy benzoic acid." Claim 4 requires that the "aromatic nitro compound is from 0.1 to 25 grams per liter." The prior art to the '259 patent expressly disclosed including aromatic dinitro compounds—including 3,5 dinitrohydroxy benzoic acid—in immersion silver plating solutions at a concentration ranging from 0.1 to 25 grams per liter. '599 patent, col. 3, lines 41-46, col. 5, lines 16-21; EP0797380A1, page 3, lines 45-47, p. 4, line 53 through p. 5, line 10. Therefore, claims 2-4 correspond to the Count. 37 CFR 41.207(b)(2).

Claim 5 of '259 is a composition claim that differs from the Count only in requiring "an aromatic dinitro" compound, and therefore corresponds to the Count on the same basis as claim 2. Claim 6 depends from claim 5 and requires that the aromatic dinitro compound is 3,5-dinitrohydroxy benzoic acid. Thus, claim 6 corresponds to the Count on the same basis as claim 3. Claim 7 depends from claim 5 and calls for the concentration of the aromatic dinitro compound to fall in the range of 0.1 to 25 g/L. This claim corresponds to the Count on the same basis as claim 4.

J. Interfering Subject Matter

The following chart demonstrates that the parties' claims interfere within the meaning of 37 CFR 41.203(a).

| Applicants' present application 10/099,936 | U.S. Patent 6,200,451 |
|---|---|
| 18. A process for improving the solderability of a metal surface, said process comprising treating the metal surface with an immersion silver plating solution, said solution comprising: | Col. 6, lines 62-65: 1. A process for improving the solderability of a metal surface, said process comprising treating the metal surface with an immersion silver plating solution, said solution comprising: |
| a). a soluble source of silver ions; | Col. 6, line 66: a). a soluble source of silver ions; |
| b) an acid; | Col. 6, line 67: b). an acid; |
| c) an additive selected from the group consisting of fatty amines, fatty amides, quaternary salts, and ethoxylated versions of any of the foregoing. | Col. 7, lines 1-6: c). an additive selected from the group consisting of fatty amines, fatty amides, quaternary salts, amphoteric salts, resinous amines, resinous amides, fatty acids, resinous acids, ethoxylated versions of any of the foregoing, propoxylated versions of any of the foregoing and mixtures of any of the foregoing. |

The only substantive difference between the respective claims is that the Markush group in claim 1 of U.S. Pat. 6,200,451 contains the following elements not included in the Markush group of applicants' claim 18: amphoteric salts, resinous amines, resinous amides, fatty acids,

resinous acids, propoxylated versions of the other additives, or mixtures of the additives. Interference in fact exists for the proposed Count because Claim 18 of the applicants' application anticipates claim 1 of U.S. Pat. 6,200,451 and vice versa. See e.g. *In re Schaumann*, 572 F.2d 312, 197 USPQ 5, 9-10 (CCPA 1978); *Ex parte A*, 17 USPQ2d 1716, 1718 (BPAI 1990).

That there exists interfering subject matter under 37 CFR 41.203(a) is further demonstrated by comparing claim 1 of US 6,544,397 to claim 18 of Applicant's instant application. Claim 1 of the '397 patent is identical to claim 1 of the '451 patent discussed above, except that claim 1 of the '397 patent calls for the additive to be present in a proportion between about 0.1 and about 15 g/L. There is no evidence of any criticality of the 0.1 to 15 g/L range, and selection of a value within this broad arbitrary range would have been obvious to one of ordinary skill in the art from the substance of claim 18 of the instant application. At the same time, claim 18 of the instant application is anticipated by claim 1 of '397 patent, so there is interference-in-fact.

Since there are unequivocal grounds for declaring an interference, all claims of both parties that are anticipated or rendered obvious by the subject matter defined in the Count should be included in the interference, and designated as corresponding to the Count. 37 C.F.R. § 41.207(b)(2), § 41.207(b)(1), § 41.203(b)(4).

Because all of the claims of the '259 patent are obvious in view of the proposed Count, they should be designated as corresponding to the Count.

K. Applicants have Priority Over the Interfering Patents

As shown below, the present application has an effective filing date of December 9, 1994. The patents for which a declaration of interference is requested each has an earliest effective filing date of February 17, 1999.

In particular, the present application is a continuation of Ser. No. 08/939,656 (now 6,395,329), filed September 29, 1997, which was a continuation of application Ser. No. 08/567,885 (now abandoned), filed December 8, 1995, which claimed priority to Great Britain application Ser. No. 9425031.3, filed on December 9, 1994.

The filing date of U.S. Pat. No. 6,200,451 was February 17, 1999. Each of U.S. Pat. No. 6,444,109 (S.N. 09/698,370); U.S. Pat. No. 6,544,397 (S.N. 09/821,205); U.S. Pat. No. 6,905,587 (S.N. 10/341,859) and U.S. Pat. No. 7,267,259 (S.N. 10/456,329) claims this priority date of February 17, 1999.

In Patent Interference 105,738, MacDermid conceded that its earliest alleged priority date is January 12, 1999. Applicants are, therefore, the senior party by more than four years under 37 CFR 41.201 and will prevail on priority in this interference.

L. The Written Description of the Claims in the Present Specification

In Ser. No. 10/099,936, the Board of Patent Appeals and Interferences has already found that claims 18, 19, 21, 22, 24 and 25 are supported by a written description in Applicants' specification. Written description support for claims 41-63 is addressed in Amendment E, filed concurrently herewith, through which these additional claims have been submitted.

M. Applicants' Constructive Reductions to Practice

Application serial number GB 9425031.3 was filed on December 9, 1994 in Great Britain. Application Ser. No. 08/567,885 (now abandoned) was filed in the United States on December 8, 1995, claiming priority under 35 U.S.C. 119 to GB 9425031.3. Application Ser. No. 08/939,656 (now 6,395,329) was filed as a continuation of 08/567,885 in the United States on September 29, 1997. The specifications of each of these three applications are substantially the same.

The following charts show where these applications provide a constructive reduction to practice within the scope of the proposed Count. Applicants' Ser. Nos. 08/567,885 and 08/939,656 contain exactly the same disclosure as Ser. No. 10/099,936 at essentially the same page and line number location.

| Count 1 | Disclosure in 10/099,936 Application |
|--|--|
| 1. A process for improving the solderability of a metal surface, said process comprising treating the metal surface with an immersion silver plating solution, said solution comprising: | <p>Page 14, lines 5-6: "The plating step is an immersion (or displacement) plating step."</p> <p>Page 14, lines 14-15: "A particularly preferred immersion silver plating method is described in our copending British application..."</p> |
| a). a soluble source of silver ions; | Page 14, lines 10-13: "Since the pads or through-holes generally comprise copper...suitable examples of plating metals include...silver...silver and bismuth ions are particularly |

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| | <p>preferred"</p> <p>Page 14, lines 18-20: "As sources of plating metal ions, any water soluble metal salt may be used...Preferably silver nitrate is used."</p> |
| b). an acid; | <p>Page 24, line 17: "any compatible acid or base may be included"</p> |
| c). an additive selected from the group consisting of fatty amines, fatty amides, quaternary salts, amphoteric salts, resinous amines, resinous amides, fatty acids, resinous acids, ethoxylated versions of any of the foregoing, propoxylated versions of any of the foregoing and mixtures of any of the foregoing. | <p>Page 22, lines 8-10: "Suitable tarnish inhibitors for use in all aspects of the present invention include for example: (a) fatty acid amines..."</p> <p>Page 22, line 13: "amides" (listed as a type of fatty acid amine)</p> <p>Page 22, line 14: "quaternary ammonium salts, quaternary diammonium salts..."</p> <p>Page 22, lines 13-15: "ethoxylated amines, ethoxylated diamines...ethoxylated quaternary ammonium salts, ethoxylated amides"</p> |

| Count 1 | Disclosure in Applicants' GB 9425031.3 Application |
|---|--|
| <p>1. A process for improving the solderability of a metal surface, said process comprising treating the metal surface with an immersion silver plating solution, said solution comprising:</p> | <p>Page 8, lines 3-20: "In accordance with the present invention there is provided a method for coating a PCB...the process comprising... plating the pads and/or through holes in a metal-plating step...The pads and/or through holes for plating are those areas of the PCB for which</p> |

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| | <p>solderability must be maintained for attachment of components in the subsequent soldering steps for component attachment."</p> <p>Page 26, lines 6-7: "9. A method according to any preceding claim in which the metal step is an immersion plating step."</p> <p>Page 7, lines 19-20: "The present invention relates to a displacement immersion silver-plating process."</p> <p>Page 10, lines 12-13: "The metal plating step is preferably an immersion/displacement plating...step"</p> |
| a). a soluble source of silver ions; | <p>Page 15, lines 18-19: "Preferably silver nitrate is used."</p> |
| b). an acid; | <p>Page 16, lines 20-21: "any compatible acid or base may be included"</p> |
| c). an additive selected from the group consisting of fatty amines, fatty amides, quaternary salts, amphoteric salts, resinous amines, resinous amides, fatty acids, resinous acids, ethoxylated versions of any of the foregoing, propoxylated versions of any of the foregoing and mixtures of any of the foregoing. | <p>Page 11, line 36 to Page 12 to line 4: "The tarnish inhibitor may be present in the plating solution itself...Thus, in a preferred method of the invention, the plated metal surfaces are contacted with a solution comprising a tarnish inhibitor during the plating step..."</p> <p>Page 13, lines 24-25: "Suitable inhibitors include for example: (a) fatty acid amines..."</p> |

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| | <p>Page 13, line 29: "amides" (listed as a type of fatty acid amine)</p> <p>Page 13, line 30: "quaternary ammonium salts, quaternary diammonium salts..."</p> <p>Page 13, lines 29-31: "ethoxylated amines, ethoxylated diamines...ethoxylated quaternary ammonium salts... ethoxylated amides"</p> |
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N. The Requirements of 35 U.S.C. 135(b) are Met.

All process claims of the present application were present within one year of the issuance of the relevant patents and within one year of the publication of the relevant applications.

Should the PTO find interference-in-fact between the claims 53-64 of the instant application and claims of MacDermid US patents 6,200,451, 6,544,397 and/or 7,267,259, it is respectfully submitted that such finding will necessarily implicate a finding of substantial equivalence between any claim as to which interference-in-fact is identified and one or more of claims 18, 19, 21, 22, 24 or 25, which were filed within the §135(b) period.

II. CONCLUSION

Claims 18, 19, 21, 22, 24 and 25 have been allowed. There is interference in fact, and Applicants have established that they will prevail under 35 U.S.C. § 102(g)(1) based on their earlier priority.

Applicants, therefore, respectfully request that an interference be declared between the present application and the following:

1. U.S. Pat. 6,200,451 (S.N. 09/251,641),
2. U.S. Pat. 6,544,397 (S.N. 09/821,205), and
3. U.S. Pat. 7,267,259 (S.N. 10/456,329).

Please contact the undersigned if there are any questions concerning the foregoing.

Respectfully submitted,

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